

### REMARKS

Applicants have canceled Claim 36 in favor of Claim 37, which has been amended to place it in independent form. Applicants have also amended Claims 37-40 to limit Z to optionally substituted pyrazolyl or benzpyrazolyl, to limit CKE to groups (1) and (8), and to change dependencies from Claim 36 to Claim 37.

In view of the Restriction Requirement discussed in the Office Action at page 2, Applicants have canceled Claim 41 and acknowledge that composition Claim 61 and method Claims 62-64 have been withdrawn from consideration. Applicants, however, request rejoinder of Claims 61-64 for the reasons presented in their previous Amendment dated April 11, 2008. Applicants also request that examination be extended beyond the previously elected species to include compounds in which CKE is group (8). (Applicants note that their species election was without traverse only to the extent that any withdrawn species will be transferred to the elected subject matter unless found patentably distinct from the elected or allowed claims.) Compounds in which CKE is group (8) are related to those in which CKE is group (1) in having similar nitrogen-containing five-membered ring systems. Furthermore, as will be discussed below with respect to the first obviousness rejection, Applicants have obtained data presented in one of two Declarations under 37 C.F.R. 1.132 showing that compounds in which CKE is within both group (1) and group (8) exhibit effective biological activities. Regardless of whether rejoinder is granted, Applicants reserve the right to file one or more divisional applications directed to the canceled subject matter.

#### Applicants' Docket Number

Applicants' undersigned representative has discovered that certain documents received from the Patent and Trademark Office refer to the attorney docket number "PO8689/BCS033014" instead of the correct "CS8689/BCS033014." The "PO" designation (which was used by a predecessor company for Polymer division applications) instead of the correct "CS" designation (which was and is used for Bayer CropScience applications) appears to have arisen from a typographical error in at least one of the original filing papers. Although this error has no substantive effect on the current application, Applicants call the Examiner's attention to the error to minimize any confusion in future correspondence.

## Information Disclosure Statement

### A. Supplemental Information Disclosure Statement

Applicants observed while reviewing the Office Action that their previously submitted Information Disclosure Statement inadvertently omitted WO 99/48869 (having as counterparts U.S. Patents 6,458,965, 6,693,092, and 6,806,264), which are disclosed in the specification at page 1, lines 23-24, and elsewhere. Applicants therefore separately enclose a Supplemental IDS that specifically identifies these documents.

### B. Consideration of Original Information Disclosure Statement

The Office Action indicates that several foreign language references submitted by Applicants have not been considered. For the following reasons, Applicants respectfully request consideration of these references.

Applicants are aware of their obligation to include a concise explanation of the relevance of information that is not in the English language. Although English translations or English abstracts are typically used to satisfy this requirement, other methods are also acceptable. See MPEP § 609.04(a)(III) (Concise Explanation of Relevance For Non-English Language Information), which states inter alia (emphasis added) that

Where the information listed is not in the English language, but was cited in a search report or other action by a foreign patent office in a counterpart foreign application, the requirement for a concise explanation of relevance can be satisfied by submitting an English-language version of the search report or action which indicates the degree of relevance found by the foreign office. This may be an explanation of which portion of the reference is particularly relevant, to which claims it applies, or merely an "X", "Y", or "A" indication on a search report.

Here, one of the references that was not considered – citation “AT” (i.e., a Beilstein database citation that itself refers to a specific page in a *Justus Liebigs Annalen Chemie* article) at Sheet 13 of 16 of their previously submitted Form PTO 1449 IDS listing – was specifically identified in the International Search Report as a particularly relevant “X” reference. Applicants therefore respectfully submit that this reference must be considered.

According to the MPEP, another way to satisfy the citation requirement is to discuss a reference in the specification and cite it in the IDS listing, with a strong preference (i.e., the phrase “should include”) for identifying “the page(s) or line(s)

numbers where the concise explanation is located in the specification.” See MPEP § 609.04(a)(III). The concise statement in the specification can take several forms, including “a simple statement pointing to similarities between the item of information and the claimed invention” with or without a discussion of the differences between the cited information and the claims. See MPEP § 609.04(a)(III). Although Applicants believe it is preferable but not absolutely essential to provide page/line indicators in the IDS listing, they are mindful of the potential burden on the Examiner and therefore provide the following table showing where the specification discusses each document that was cited but not considered. Applicants also note that these documents disclose known compounds, methods of making compounds, and methods of application.

Form 1449 Sheet No.	Label	Brief description (from Form 1449)	Specification location
1	AS	Liebigs Ann. Chem., 1985, pp. 1095-1098	Pg. 1, lines 10-12
2	AR	Arch. Pharm., 309, 1976, pp. 558-564	Pg. 2, lines 8-11
2	AS	Chem. Ber., 91, 1958, p. 2849	Pg. 2, lines 8-11
2	AT	Monatsch, 95, 1964, pp. 147-155	Pg. 2, lines 16-19
5	AT	Schotten-Baumann, Organikum, 1977, p. 505	Pg. 91, line 14, to pg. 92, line 8
6	AR	Houben-Weyl, Methoden ..., 8, 1952, pp. 467-469	Pg. 92, lines 9-12
6	AS & AT	Ann. Chim., [14], 5, 1970, pp. 11-22 and pp. 23-38	Pg. 93, lines 4-6
9	AR	Organikum, 1977, pp. 517-518	Pg. 100, lines 9-12
9	AT	Organikum, 1977, pp. 587-589	Pg. 101, lines 4-12
10	AR	Organikum, 1977, p. 499	Pg. 102, line 19, to pg. 103, line 5
10	AS	Organikum, 1977, pp. 519-521	Pg. 103, line 12, to pg. 104, line 4 and Pg. 106, line 11, to pg. 107, line 7
10	AT	Liebigs Ann. Chem., 1954, pp. 1-15	Pg. 108, line 13, to pg. 109, line 5
11	AR	Reaktionen ..., 1978, pp. 212 and pp. 513-515	Same text as Sheet 10, AT
11	AS	Liebigs Ann. Chem., 443, 1925, pp. 242-262	Same text as Sheet 10, AT
11	AT	Chem. Ber., 98, 1965, pp. 2551-2555	Same text as Sheet 10, AT
12	AT	Chem. Ind., 37, 1985, pp. 730-732	Pg. 148, lines 4-6

Applicants therefore respectfully submit that these additional reference must also be considered.

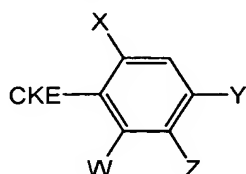
Rejections under 35 U.S.C. 103

Claims 36-41 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,451,843 ("Lieb et al") (which Applicants had identified in their previously submitted Form PTO 1449 as the PCT counterpart WO 99/55673) for various reasons that depend on the specific claims at issue.

A. Claims 36-40

Compound Claims 36-40 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lieb et al. Applicants respectfully traverse.

Lieb et al discloses compounds having the general formula



in which **X** can be any of a number of substituents but is never hydrogen; **Y** is optionally substituted cycloalkyl, aryl, or heteroaryl; **W** can be hydrogen or any of a number of other substituents; **Z** can be any of a number of substituents but is never hydrogen; and **CKE** is one of several cycloketoenol groups, most – but not all – of which are heterocycles. E.g., column 2, line 50, through column 5, line 55. To simplify comparison of the compounds of Lieb et al with their claimed compounds, Applicants point out that members of group **Z** of the reference are not found in the definition of their group **Z** but are instead found (in part) in the definition of their group **Y**. Similarly, members of group **Y** of Lieb et al are not found within the definition of Applicants' group **Y** but instead should be compared with Applicants' group **Z**. Applicants submit that the differences between group **Y** of Lieb et al and Applicants' group **Z** are significant.

In particular, unlike the partial overlap between group **Z** of the reference and Applicants' group **Y** as mentioned above, Lieb et al does not provide within its teachings about group **Y** an enabling disclosure of the narrowly defined pyrazolyl or benzpyrazolyl groups specified for Applicants' group **Z** in their claims as amended. The reference at only one place in the specification (specifically, column 3, lines 1-2) uses the general term "hetaryl" when describing its group **Y** and otherwise teaches a clear preference for specific heteroaryl moieties that are structurally different from

the pyrazolyl or benzpyrazolyl groups specified for Applicants' group Z (i.e., the group believed closest to group Y of the reference). Compare "Y preferably" at column 29, lines 1 et seq, "Y particularly preferably" at column 35, lines 44 et seq, and "Y very particularly preferably" at column 41, lines 20 et seq. [It may be noted by way of further comment that Lieb et al does not claim any embodiments in which Y is a heterocyclic group, much less a pyrazolyl or benzpyrazolyl group.] For this reason alone, Applicants believe their claims invention is patentably distinct from Lieb et al.

However, in further support of their position, Applicants submit comparison data in the form of two Declarations under 37 C.F.R. 1.132 of Dr. Heinz Kehne and Dr. Olga Malsam, respectively.

The Declaration of Dr. Kehne shows that Applicants' compound of Example I-1-a-2 (i.e., the elected species) exhibits dramatically superior post-emergence efficacy against four test plants when compared to compound of Example I-1-a-10 of Lieb et al (see table at column 99/100), which differs from Applicants' compound I-1-a-2 only in having a 4-chlorophenyl group instead of a chloropyrazolyl group. With respect to the choice of comparison compounds, it is well established that all embodiments disclosed in a reference can be presumed essentially equivalent unless the reference states some preference for selected embodiments. Here, Lieb et al states three levels of preference for members of group Y (see, as mentioned above, column 29, lines 1 et seq, column 35, lines 44 et seq, and column 41, lines 20 et seq). Ordinarily, one skilled in the art could presume that all of the specified moieties within the highest very particularly preferred members of group Y (i.e., column 41, lines 20 et seq) would exhibit essentially equivalent herbicidal effectiveness. However, Lieb et al goes on to say that even among the very particularly preferred members, optionally substituted phenyl groups are preferred over the others. See column 41, lines 35-40. Applicants also point out that the examples of Lieb et al are limited to embodiments in which its group Y is 4-chlorophenyl. Therefore, Applicants submit that their choice of chlorophenyl compounds for comparison is fully consistent with the teachings of Lieb et al.

Applicants, of course, are aware that the application rates for the test samples of the Declaration were not identical, being 320 g/ha and 80 g/ha for their inventive compound I-1-a-2 and 250 g/ha for comparison compound I-1-a-10 of Lieb et al. However, since the applications rates used for Applicants' compound bracket the rate used for the compound of the reference and since both application rates used

for Applicants' compound produced 100% damage to the test plants, whereas the in-between application rate used for the compound of Lieb et al produced no effect whatsoever, it is clear that Applicants' inventive compound I-1-a-2 is dramatically superior to the comparison compound I-1-a-10 of Lieb et al.

In addition to the data discussed above, the two Declarations provide support for expanding examination to include the full scope of Claim 37. In particular, the Declarations of Dr. Kehne and Dr. Malsam provide data for tests comparing Applicants' inventive compound I-1-a-2 and other pyrazolyl compounds of their invention in which CKE is group (1) with corresponding comparison compounds having a 4-chlorophenyl group instead of a chloropyrazolyl group. The comparison compounds used in these tests are similar to those found in Lieb et al but are more specifically disclosed in previously cited WO 99/43649 (having as counterparts U.S. Patents 6,417,370, 6,716,832, 7,105,471, and 7,288,676 and published U.S. application 2008/081807) and WO 99/48869 (having as counterparts U.S. Patents 6,458,965, 6,693,092, and 6,806,264), which are disclosed in the specification at page 1, lines 23-24, and elsewhere. [For the comparisons of compounds within WO 99/43649, Dr. Kehne's Declaration refers to compounds of the counterpart "US6,417,370."] Dr. Kehne's Declaration also provides data for tests that compare Applicants' inventive compound I-8-a-2 in which CKE is group (8) with a directly comparative compound having a 4-chlorophenyl group instead of a chloropyrazolyl group. This comparison compound is found in previously cited WO 01/17973.

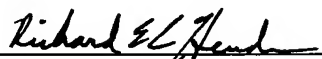
Also relevant to expansion of examination beyond the elected species (as mentioned in their previous Amendment) are use examples from their specification that relate to compound I-1-a-2, both alone (three tests) and in combination with mefenpyr, and that relate to other compounds of general formula I-1-a (e.g., the table at page 169), including compounds I-1-a-1 (two tests) and I-1-a-3.

B. Claim 41

Process Claim 41 also stands rejected under 35 U.S.C. 103(a) as being unpatentable over Lieb et al. In view of their cancellation of Claim 41, Applicants respectfully submit that this ground of rejection is now rendered moot.

In view of the preceding amendments and remarks, allowance of the claims is respectfully requested.

Respectfully submitted,

By   
Richard E. L. Henderson  
Attorney for Applicants  
Reg. No. 31,619

Bayer CropScience LP  
2 T.W. Alexander Drive  
Research Triangle Park, NC 27709  
Ph.: (919) 549-2183  
Fax: (919) 549-3994

Q:patents/prosecution documents/cs8689/8689 amendment 12-3-08